“Kaizen — or continuous improvement — is at the heart of everything we do at Toyota. Environmental management allows us to look for areas of improvement and measure progress.”

– Dian Ogilvie, Senior Vice President & Secretary Toyota Motor North America, Inc.
ENVIRONMENTAL MANAGEMENT SYSTEMS (EMSs) in place at our facilities provide a framework for identifying areas for improvement and measuring progress toward performance targets. This framework helps us manage our environmental footprint and moves us closer toward our long-term vision of operating in harmony with the environment.

When we suspended production during the economic downturn, our EMSs enabled our employees to find and implement process improvements and low-cost kaizen opportunities. Our employees used their expertise and creativity to find ways to reduce our use of energy and water, increase recycling, and reduce air emissions. We described many of these in other chapters to demonstrate progress against our five-year Environmental Action Plan.

We could not have achieved all of this alone. We work with our business partners in order to attain the best results. Our suppliers and our dealers play a large role in the success of our environmental initiatives.

Our targets in the areas of vehicle life cycle assessment, environmental management systems, and environmental management with our business partners are described in this chapter.

VEHICLE LIFE CYCLE ASSESSMENT
Eco-VAS is a comprehensive system that Toyota’s parent company in Japan developed to measure and reduce the environmental impact of a vehicle across its entire life cycle — from parts and vehicle manufacturing to driving and maintenance to the ultimate recycling and disposal of the vehicle. Our parent company originally envisioned that the Eco-VAS system would be implemented globally, but other more specific environmental and regulatory requirements have consumed our attention. As a result, although we employ life cycle thinking as part of future North American product planning and development, we have suspended our target to implement Eco-VAS on all new or redesigned vehicle models (Target 12.1).

ENVIRONMENTAL MANAGEMENT SYSTEMS
Toyota’s EMSs help us check that our activities comply with all applicable federal, state, provincial, territorial and local requirements, as well as our own internal requirements. All of Toyota’s plants and logistics sites, and even some of our office complexes, have an EMS.

The training our employees receive in EMS awareness and in functional topic areas such as hazardous waste disposal is critical to the continued success of the EMS, and to our ability to achieve leading levels of environmental performance. (Target 13.1) A number of our locations received awards last year in recognition of their environmental excellence. Our assembly plant in Princeton, Indiana, received its fifth Governor’s Award and the Evansville Chamber of Commerce Award for Environmental Excellence. Our plant in Cambridge, Ontario, was named one of “Canada’s Greenest Employers in 2009” by Mediacorp Canada Inc.

Eight of our logistics centers underwent ISO 14001 recertification audits for their EMSs last year; all were recertified with no findings of major nonconformities. Our plants in San Antonio, Texas, and Woodstock, Ontario, both achieved ISO 14001 certification of their EMSs in May 2008; and we have maintained ISO 14001 certification/registration at all other North American manufacturing plants and logistics sites. (Targets 13.2 and 13.3)

Compliance
Our North American logistics sites achieved their eleventh consecutive year with no hazardous materials/dangerous goods violations.

Toyota received no complaints, but did receive notices of minor violations that did not result in adverse impacts to the environment. (Target 13.4) These included a wastewater issue at our Bodine location in St. Louis, Missouri, and a notice to comply related to a continuous emission monitoring system (CEMS) reporting requirement at our TABC plant in Long Beach, California.
Toyota and several other companies have been named as potentially responsible parties (PRPs) at a waste management site in Calvert City, Kentucky. Toyota is providing financial assistance to the cleanup.

**Building Better Plants and Offices**

We consider LEED® (Leadership in Energy and Environmental Design) during new construction and when remodeling our facilities. (Target 13.5) LEED is a point-based program administered by the U.S. Green Building Council that sets standards for “green” buildings. It promotes a whole-building approach to sustainability by recognizing performance in key areas of human and environmental health. We have a number of sites that have been LEED certified.

The Lexus Florida Training Center in Miramar, Florida, has been awarded Gold LEED Commercial Interiors (CI) certification, becoming the first LEED CI certified service training facility for Lexus and the first in Florida.

Through Toyota’s Process Green initiative, the Lexus Florida Training Center incorporated sustainable building design features and developed innovative environmental practices to achieve the Gold LEED certification. For example, the center uses Green Seal-certified products for housekeeping that do not contain harmful chemicals and are bought in bulk to reduce wasteful packaging. Other new practices include a comprehensive, site-specific waste reduction/recycling program to enable the facility to achieve zero waste to landfill, and a “Green Pest Control” system to care for the facility. The Center has also committed to purchasing 100% of the electricity needed for the first two years of operation from renewable sources.

Our new engineering design and safety test facility in York Township, Michigan, opened in late summer 2008. The building site — a former Brownfield — was carefully chosen to minimize disruption to natural habitat. We retained 150 existing trees and planted more than 3,500 new trees and 8,800 native perennials. We protected natural streams and ponds with bioswales to manage silt and clean stormwater while excess parking lot and roadway stormwater runoff is used to irrigate the grounds. We installed waterless urinals and variable flush toilets to save hundreds of gallons of water every day, and incorporated an under-floor air system that is 8% more energy efficient. The facility has registered with the U.S. Green Building Council, and we are awaiting LEED certification.

**Eco-Plant Planning**

We develop an eco-plant plan before beginning construction on a new plant or major expansion. These plans help us construct plants using best available technology to minimize the environmental footprint of our operations. The plan also includes performance targets for when the plant begins operating that address energy, VOCs, waste and water, and consider best practices and local conditions. We audit facilities during and after construction to check that the elements of the plan are implemented. Over the past year, we have been conducting audits to ensure that the Woodstock plant is meeting its eco-plant plan, and are continuing to implement the plan at this location. (Target 13.6)

**Operating Sustainable Plants**

“Sustainable Plant” activities make efficient use of resources and harmonize our operations with natural surroundings. Toyota aims to create and operate such production sites worldwide with the following three perspectives in mind:

- Achieving groundbreaking environmental performance by introducing innovative technology and kaizen activities.
- Reducing CO₂ by using renewable energy (such as biomass) and natural energy sources (such as solar power and wind power).
- Contributing to the local community by planting trees at plants and in local communities.

Our plant in Huntsville, Alabama, was identified as a model sustainable plant. Its sustainable plant activities included planting over 2,000 trees as part of a reforestation project in a washed out area of the property, and enhancing environmental awareness in Huntsville through the construction of the Community Pavilion for Environmental Education at the Wade Mountain Greenway.

**ENVIRONMENTAL MANAGEMENT WITH OUR BUSINESS PARTNERS**

Toyota works closely with our business partners, including suppliers and dealers.

**Suppliers**

Toyota’s Green Supplier Guidelines were originally created in 2000, and updated in January 2007. (Target 14.1) The Guidelines emphasize that Toyota expects its suppliers to be in compliance with applicable laws, regulations and social norms. Suppliers are also asked to go beyond legal and social requirements and to undertake activities that support Toyota’s environmental goals.
Toyota works with its suppliers to help them improve their environmental performance. For example, in FY2009 a supplier came to our North American manufacturing headquarters in Erlanger, Kentucky, to benchmark our EMS and best practices. The supplier was especially interested in learning more about how we map our waste streams, how we manage universal waste, and how we conduct treasure hunts to look for kaizen opportunities. They also learned about our five-year environmental action plan process and our annual North America Environmental Report process.

**Dealer Training**

There are over 1,800 Toyota, Lexus and Scion dealerships in the U.S., Canada and Mexico. As key business partners, we provide them with resources to help them manage service-related waste streams and comply with environmental and safety regulatory requirements. We use a number of resources to provide environmental training programs to our dealers. **(Target 14.2)**

For example, we revamped our Web-based Environmental Assistance Network and launched the C.L.E.A.N. Dealer Web site (Community Leadership Environmental Assistance Network) at www.cleandealer.com. We expanded the scope of the Web site to include environmental, health and safety resources as well as transportation-related information. Since the launch of C.L.E.A.N. Dealer, activity on the Web site has increased by nearly 50%. We also launched a dealer training program called HazMat U (www.hazmatu.org/tms). This program, now required for all Toyota and Lexus dealers, was developed by compliance specialists from major automotive manufacturers under the direction of the North American Automotive HAZMAT Action Committee (NAAHAC).

We also launched the Toyota Recycling and Environmental Awareness (TREA) program, a Web-based, voluntary nonhazardous recycling program for dealers. This program includes a partnership with a national waste management firm that can provide recycling services to dealers, as well as “right sizing” audits to ensure the proper size waste bins are being used.

**Building Green Dealerships**

We work with Toyota and Lexus dealerships to promote green building practices. Toyota’s Image USA II program has developed a dealer model lab with architectural standards that include many green design elements.

We are working toward achieving LEED certification at eight dealerships and a certified service center by FY2010. **So far, four dealerships are completed and LEED certified. Two dealerships are finishing construction and will be submitting to the U.S. Green Building Council (U.S.G.B.C) for final review. Two additional dealerships are complete and awaiting certification from the U.S.G.B.C. (Target 14.3)**

The Mark Miller Toyota/Scion dealer in Salt Lake City, Utah, achieved Gold LEED certification for its building renovation. Some of the green elements incorporated into the facility include:

- A cistern system to collect and store rainwater and air conditioning condensation for irrigation and for washing cars.
- High-speed glass service bay doors to reduce heat and cold loss from service areas while providing additional light to the interior.
- Recycled materials used in tile, carpeting, wood paneling and cubicles including the use of recycled windshield glass used as carpet backing.
- A full-service café as well as a fuel farm on-site so employees do not have to drive to get something to eat or to fuel their cars.

Dealership employees volunteered more than 4,000 hours to restore over four acres of land at the Springs Preserve in Las Vegas. The Springs Preserve is a 180-acre cultural and historical attraction consisting of wetlands, restored desert habitat, desert gardens, the Nevada State Museum, educational trails, and building centers dedicated to environmental and historical education specific to the Las Vegas valley.

**LOOKING AHEAD**

Over the next two years, we will be developing our next five-year environmental action plan and setting more challenging targets to achieve our long-term vision of becoming number one in the world, and number one in the region in environmental performance.